CHAPTER – II

REVIEW OF RELATED LITERATURE
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2.0 INTRODUCTION

In the previous chapter, a brief explanation about the problem selected and its significance was given. In the present chapter, the investigator had gone through the literature related to this study to acquire the required knowledge and understanding to carry on the study according to the objectives. The review of related literature is an important part of the scientific approach and is carried-out in all areas of scientific research. In the words of Borg (1965) “the review of related literature forms the foundation stone upon which the future research work will be stated. The study of literature implies locating, recording and evaluating the relevant research. This gives the investigator an understanding of the previous work already done in the areas of interest”.

2.1 IMPORTANCE OF REVIEW OF RELATED LITERATURE

This literature in any field forms the foundation upon which all future work must be built. Research therefore, can never be undertaken in isolation from what has already been found in the area of choice.

Following are some of the purposes/importance which we can notice that

a. It shows whether the evidence already available solves the problem adequately without further investigation.

b. It also tells the researcher what has been done, found and accepted and what needs to be done, revealing, the status of research in the field.

c. It provides ideas, theories, explanations (or) hypothesis valuable in formulation the problem.
d. It suggests appropriate methods of research to find the solution of problem.

2.2 RESEARCH STUDIES ON THE PRESENT STUDY

The studies on effect of Mid Day Meal programme on Secondary Education with regard to the enrolment and dropouts are very few. The researcher has found a few studies which are related to the present study but, keeping the scope and nature of the research topic in view, review of the related literature was carried out. The available literature related to the present research work has been reviewed and presented.

Numerous research studies support this correlation between poverty and low educational attainment, and find that entrenched, household characteristics are highly predictive of children’s academic success.

One counter-point to the provision of government feeding programs is the idea that a child will not actually benefit from the program if they receive fewer calories later in the day as a response. This “theory of altruism” Becker (1974) describes the practice of reallocating all or part of transfers away from the intended recipient and towards other household members. For example, a potential scenario is one in which a credit-constrained parent withdraws calories from a child later in the day because the child already received a subsidized school meal. In this case, the transfer merely substitutes for the calories the child would have received later in the day, and instead benefits other members of the household.

Canagarajah and Coulombe (1997) in their study of child labor and schooling decisions in Ghana, find that education decreases and child labor increases as household wealth declines, supporting the theory that schooling can be a financial burden for poorer families.

‘Impact of midday meal programme on educational and nutritional status of school children in Karnataka’ and to assess the effect of the Mid Day Meal (MDM) Program on enrolment, attendance, dropout rate and retention rate in the schools and its impact on nutritional status as well as on school performance by multistage random sampling with a total of 2,694 children (MDM: 1361; Non-MDM : 1333) from 60 schools were covered in the study. Results of the study indicated better enrolment ($p < 0.05$) and attendance ($p < 0.001$), higher retention rate with reduced dropout rate ($p < 0.001$) a marginally higher scholastic performance and marginally higher growth performance of MDM children. The study was concluded that MDM program is associated with a better educational and nutritional status of school children in Karnataka.

Ravallion and Wodon (2000) did their study in Bangladesh a targeted school stipend administered through Bangladesh’s Food-for-Education program had strong effects on school participation, leading to an average of a 17.3 percentage point increase in attendance rate for boys and a 16 percentage point increase for girls.

Dreze and Kingdon (2001) in their analysis of the determinants of school participation in rural North India, and find that the probability of school participation increases with higher levels of parental education, and that this relationship is particularly strong between parents and children of the same gender. Additionally, the effects of caste status, household wealth, and level of parental motivation are highly significant. They explain the decision to send a child to school, like other household investment decisions, can be modeled by a cost-benefit framework. Schooling requires an initial investment, composed of both the direct cost of schooling—such as transportation, textbooks, meals, and other classroom fees—and the opportunity cost of schooling. This opportunity cost reflects the foregone benefits a child could provide his or her family if not in school, through labor market income or household chores. While education
reduces poverty in the long run by providing greater job access and higher wages, the short-run costs of schooling can be very steep, particularly for families living below the poverty line. Thus, many families find that the future benefits of education do not justify its immediate cost.

Schultz (2002) attempt an important policy response to this issue has been to target the cost of education itself, providing subsidies and in-kind or conditional cash transfers when a household would otherwise be unable to afford education. For example, the PROGRESA program, initiated by Mexico in 1997, provided cash transfers to rural households conditional on satisfactory school attendance by their children, and it has been estimated to increase school attendance of treatment children by 0.66 years on a baseline of 6.80 years.

Furthermore Bobonis and Finan (2002), made their attempt PROGRESA increased enrolment even for children who were ineligible for the program, but benefitted from the influence of peers, particularly those from the poorest households.

Jacoby (2002) examines this intrahousehold reallocation of resources in his analysis of a school feeding program in the Philippines, to test for the presence of an “Intrahousehold Flypaper Effect (IFE)”, which is the degree to which a government transfer sticks to a particular individual. Jacoby interviewed a random sample of children about their diet the previous day, and utilized random variation in interview dates to determine the exogenous effect of a school meal on caloric intake. Interestingly, he finds an IFE significantly different from zero; that is, parents do not withdraw calories from their children in response to the provision of a school meal. When the poorest households are examined, the IFE is slightly weaker, but still statistically significant, indicating that school feeding programs do succeed in reallocating resources towards their targeted recipients.
Raghuman Singh (2002) conducted a study on ‘Midday meal motivates school children’ on 240 students (120 boys and 120 girls) from 10 schools and found that i. students expressed their prefer among four major incentive schemes by placing them, in the following orders of priority, Midday meal, free text books, free uniform and attendance scholarship. Midday meal is the most popular incentive, ii. The impact of the midday meal programme on retention rates, iii. The dropout rate was 293 percent during pre ad post programme period.

Centre for Equity Studies, Delhi in (2003) conduct a field survey ‘to assess and monitor MDMS in Rajasthan, Karnataka, and Chattisgarh. The main findings are:

a. In 76 of the 81 sample schools, investigators found that mid-day meals were being served regularly;

b. Infrastructural facilities (cooking shed, water supply, etc.) vary widely, and are often inadequate;

c. Class I enrolment increased by 15per cent in the three states combined, between the 2001-02 and 2002-03 academic years;

d. Since children often come to school without any breakfast, they find it difficult to concentrate on an empty stomach. Mid-day meals seem to have resolved this problem;

e. Mid-day meals have also helped to avert an intensification of child under nutrition in many drought-affected areas;

f. The experience of sharing a meal together may help overcome caste barriers. The survey found little evidence of open discrimination;

g. Most lower-caste parents did not feel that their children had been subject to discrimination; and

h. There has been upper-caste resistance to the appointment of dalit cooks.
Jean Dreze and Aparajitha Goyal (2003) conducted a recent survey and published in the Hindu daily on the topic ‘The future of Midday Meal’ and remarked that i. school meals have made a promising start around the country yet quality issues need urgent attention it, Midday Meal programme is to realize their full potential, ii. Improved Midday Meal programmes could have a major impact on school attendance child nutrition and social equity.

Miguel and Kremer (2004), and Bobonis et al (2006) attempt on the particular policy intervention evaluated on a government-sponsored school feeding program, which partially mitigates the cost of schooling by offering a free or subsidized meal or snack, conditional on a child’s enrolment and attendance. This type of intervention improves school participation by addressing both the financial and health factors that contribute to lower attendance rates. Past research finds that children who are suffering from disease, infection, or poor nutrition have significantly lower school participation rates than children who are healthy.

Evidence from the field supports the notion that school feeding programs do work, and do shift resources to those who are most in need. An exploration of school feeding programs in a greater diversity of regions will continue to shed light on the effects of such programs, particularly on the educational advancement of youth.

Thorat and Lee (2004) at Indian Institute of Dalit Studies (IIDS), New Delhi conducted a study and shows:

a. Uttar Pradesh and Bihar, where one third of India’s dalits live, deny dalit and other poor children access to their legislated entitlements from the very beginning, by simply refusing to implement the shared, cooked, MDMS;

b. The distribution of dry grain to government school children under the MDMS takes place in dominant caste localities; and
c. Employment of dalit cooks is problematic in Rajasthan and Andhra Pradesh.

Bhanu Prasad (2005) published a research paper on ‘Midday meal don’t work for dalith children’ and commented that i. the Midday Meal scheme take care of the meal of noon but not the other tow meals, the parents must make arrangements for this, ii. The children’s education now becomes economically univable, iii. All policy packages to retain dalith children in the school system have failed.

De et al (2005) conducted a study on MDMS in Delhi and found:

a. MDMS was officially implemented on 1 July 2003 in only 410 Municipal Corporation of Delhi (MCD) schools. In the next phase, starting from September 2003, more schools were brought under the scheme, and all schools were covered since April 2004;

b. MCD began with as many as 72 suppliers, which was whittled down to 56, then to 32 and presently consists of only 11 NGOs (non-government organizations), running 13 kitchens;

c. The quality of rajma and vegetable pulao has not been up to the mark;

d. Parents were never allowed to taste the meal distributed;

e. Hygiene was seldom maintained in the case of MDMS;

f. Some teachers preferred dry food instead of cooked meal;

g. Most of the schools lack adequate infrastructure (including toilet facilities) for the successful implementation of MDMS;

h. Serving of meal by various contractors under the disguise of NGOs has become a business venture;

i. A few school children found the food very unattractive. Some said that eating the food made them ill; and
j. Some parents felt that the food served was not sufficient for growing children.

Pratichi Trust (2005) in West Bengal conducted a study and shows that:

a. The MDMS was started in some 1,100 primary schools in five districts (Murshidabad, Birbhum, Bankura, Paschim Midnapore, and Jalpaiguri) and extended to some other districts. A total of 5,200 primary schools were brought into the fold of the programme till March 31 2004;

b. Only a few of the richer households, mainly of Caste Hindu background, were against the continuation of the MDMS;

c. There were a handful of upper caste children, who in unison with their parents’ inhibition towards the meal showed their disliking towards the cooked meal;

d. Some children highlighted the need for a change in the monotonous menu of khichuri (made of boiled rice, pulses, turmeric, little oil and local vegetables) everyday;

e. Inadequate salaries were paid to the cooks;

f. In most of the schools, it was reported that the conversion cost was found too inadequate to make a proper meal; and

g. The scope for involving the parents in the process of implementation of the programme was very limited.

Gangadharan (2006) conducted a study on MDMS (termed as noon-meal scheme in Kerala) running in Kerala, and found that

a. The physical facilities for MDMS are available only in 50per cent schools; 94per cent schools depend on firewood for cooking; separate building for kitchen outside class rooms are rare; adequate space is not there in 50per cent schools. School verandah is the main venue for serving food;
b. The government grant is far less than the total expenditure in many schools. The average annual financial deficiency in schools is around 15 per cent;

c. Schools with less number of students have higher per day student expenditure;

d. The Panchayati Raj Institutions (PRIs) have yet to show active interest in the management of the programme;

e. The average MDMS enrolment rate is between 85 and 95 percent;

f. There is a demand that the menu should be improved and made more attractive and the noon meal programme be made a full-fledged School Lunch Programme meant for all teachers as well as students with partial or free packages;

g. Storage provisions are rarely available in most of the schools; and

h. The cooks engaged in schools are untrained, inexperienced, aged and educationally under-qualified.

Afridi (2007) conducted a study and observed even if a child is able to attend school, they are unlikely to be focused and productive if they are undernourished and weak. By providing free and nutritious food during the school day, India’s mid-day meal program has been shown to significantly increase daily caloric intake as well as levels of protein and iron for recipient children. Therefore, provision of an in-class meal has the added benefits of keeping children in school who would otherwise be too sick or weak to attend, and improving academic achievement for those enrolled in school. As the results of these studies cannot be extrapolated outside of the area of study, it is useful to analyze similar programs in different regions.

CUTS (2007) conducted a study on MDMS in Rajasthan and found:

a. Initially, students were distributed boiled wheat supplemented with groundnut and jiggery (Gur) under the MDMS;
b. More than 90 per cent parents and students were satisfied with the MDMS;
c. Each school is required to send a monthly expenditure statement and vouchers to the Panchayat Samiti, which is supposed to reimburse the amount within 15 days;
d. Only 21 per cent of the schools received the funds every month, in time. The rest got funds in a time ranging from 2 to 6 months (12 per cent got funds once in 6 months);
e. 97 per cent of the teachers reported receiving good quality food grains;
f. Only 23 per cent of the schools were able to receive food grains after getting them weighed before delivery;
g. The absence of a weighing mechanism in most schools makes it difficult to measure the quantity of food grains delivered;
h. Most schools lack adequate cooking and storage facilities;
i. 62 per cent of the cooks interviewed said that the MDM was cooked in the open, which is unhygienic; and
j. Teachers are spending close to 20 per cent of their time or more on managing MDMS instead of teaching.

Emerson and Souza (2007) conducted a research in Brazil supports a positive relationship between parent and child education levels, and suggests that higher levels of maternal education reduce intrahousehold gender biases that may prevent females from attending school.

Recently, it has been noticed that Ms. Renuka Chowdhury, the Union Minister of State for Women and Child Development, has become keen on public-private partnership for delivering ready-to-eat packaged food in schools instead of cooked meal. Many feel that such a move would lead to intensification of Contractor Raj and would create obstacle towards decentralization. The Ministry has tried to project that hot cooked meal has failed to address
malnutrition in order to introduce ready-to-eat packaged food under the MDMS (SSMI, 2008). In Chattisgarh, the involvement of Mithanins has contributed to reduction of teacher absenteeism and misbehavior of teachers in the schools and has increased effectiveness of the MDMS.

Dipa Sinha (2008) did a work on ‘Social audit of the Midday Meal Scheme in Andhra Pradesh’ and collected the data from 50 school and 100 students and found that i. The rice for the Midday Meal should be directly supplied to the school, ii. The Head Master should be made responsible for the rice and maintaining the records, iii. Cooking agencies must be paid in time, iv. System of payments such as paying the cooks is fixed as monthly wage.

World Bank (2008) conducted different studies across the regions, and placed in their report nearly 1.4 billion people living below the poverty line will be less likely to afford education for their children, further perpetuating the cycle of poverty through future generations.

A pilot project was undertaken by Acharya NG.Ranga Agricultural University, Hyderabad (2010) under the caption “Feasibility of introducing Jowar/Ragi items of cooked food” in Midday Meal” in one school of each of in the following districts

i. Mahabubnagar (155 children).

ii. Vizianagaram (194 children)

iii. Ananthapur (448 children).

This Programme was implemented for 45 days to assess the impact both on nutrition and acceptance by children. After completion of the project, it is reported that there is improvement in weight of the children.

Bodh Tree Consulting Ltd., a software consulting agency has developed a software to monitor the attendance of children by establishing kiosks in 10 schools in 5 Districts for
monitoring the attendance of children / teachers, taking MDM up to 31st January 2007 (free of cost).

Bodh Tree Consulting Ltd., a software consulting agency has also developed the “STAMP” is a web-based information system to display information regarding the student and teacher attendance, in all Ranga Reddy schools assessed at 2,400 schools covering 3,40,000 students approximately including consumption of Mid Day Meals.

Paindla Prasad (2010) collected the ‘opinion of primary school children towards the Midday Meal programme in Warangal District’ and stated that i. the hunger of the children will protected by Midday Meal programme, ii. The attendance in each class was incresead, iii. The Enrolment was hike and the dropout rate was reduced, iv. The socialization was developed among the children belonging of all casteds with the help of Midday Meal Programme, iv. The children opinioned that the programme was continue forever.

United Nations (2010) also declared the same was also then the 69 million children not enrolled in school worldwide. Policy intervention is therefore needed to achieve the Millennium Development Goal of universal primary education and ensure that all children have equal access to education.

Friedman et al (2011) attempt on the importance of education to economic development cannot be overstated, considering its impact on several critical development measures. Not only does education provide better job market opportunities, leading to higher wages and an improved standard of living, but evidence also suggests that improved schooling inputs can lead to a greater sense of political awareness, reduced acceptance of traditional authority, and increased gender equality. However, the poor health, low welfare levels, and overall underdevelopment
characterizing cyclical poverty are often the factors that impede access to schooling in the first place.

1.3 DETAILS OF EVALUATION STUDIES

The SPIU Education through M.V. Foundation and other three external agencies has conducted Social Audit of the Mid Day Meal Scheme in 261 schools spread over five districts in viz. Adilabad, Kurnool, Mahabubnagar, Prakasam and Vizianagaram districts.

Methodology:

The key persons who conducted the Social Audit in the villages were the Mandal Resource Persons (MRPs). A team of two Mandal Resource Persons conducted the Social Audit in five villages, along with the Village Social Audit Team (VSATs) in each village. Through an initial Grama Sabha, the Mandal Resource Persons formed a Village Social Audit Team of 5-7 members in each village. The Village Social Audit Teams had as members, parents of school children, gram panchayat members, local leaders, youth, women group members etc. The Village Social Audit Team members were given training at the Mandal Level on the conduct of Social Audit of the Mid Day Meal Scheme.

Social audit of Mid Day Meal Programme in five districts of Andhra Pradesh was done by SPIU Education in collaboration with four identified agencies-MV Foundation, SWC Consultancy, APARD and Foundation for Rural & Social Development. M.V. Foundation acted as the nodal agency for the project. Social Audit was conducted in 50 schools in each district with the following objectives:

a) To assess the present status of performance of the scheme.

b) Create awareness among the beneficiaries i.e., children and parents about the Midday Meal Programme provided in the school.
c) Train Village Social Audit Teams to carry on the process of Social Audit.

**Training:**

Training programme was conducted in the selected five districts for the Mandal Resource Persons (MRPs) and Supervisors, who in turn were selected by the resource agencies to facilitate the social audit process. The training was conducted in two phases. Overall 1650 members were trained. Each batch received a three day residential training input, with resource persons drawn from the Government of Andhra Pradesh, APARD, Centre for Good Governance and M.V. Foundation. The participants were given an orientation on the mid day meal programme, principles of social audit and social audit of the mid day meal scheme and were asked to go to their respective villages to identify the village social audit team.

Initially, a Gram Sabha was held to sensitize the community on the mid day meal programme. The village social audit teams were identified in this Gram Sabha. This first visit to the village was also used as an opportunity to gather some initial information related to the school and the mid day meal programme. This Gram Sabha was held in all the villages in which the social audit was going to be conducted. After the selection of the village social audit teams in all the villages, a one day orientation programme was held at the mandal level in two to three batches, depending on the number of VSATs.

This training was conducted by the supervisors with the help of the MRPs. The ‘social audit in mid day meal’ manual was used for this training. The VSATs were given orientation on the principles of social audit, the guidelines of the mid day meal scheme, the tools for social audit of mid day meal and the role of the VSATs in the entire process. Social Audit is conducted
for five consecutive days in each school in each village in the first round. The procedure is repeated in the second round too after a gap of one week.

The following are the preliminary findings from the social audit of the midday meal scheme

**Attendance Verification**

Data was collected from the attendance register and mid day meal register (where available) on the officially recorded number of children joining the mid day meal. A headcount was then conducted during lunchtime to actually verify the number of children actually present during the meal. If there was a discrepancy between the number reported in the register and the actual number of children eating, the team identified the children who were marked present but did not eat and spoke to them to understand the reasons for their absence.

**Rice**

The stock registers related to the rice used for mid day meal programme were checked and this data compared with the number of children actually eating the mid day meal. The process of delivery of rice from the godowns to the dealer, and then from the dealer to the school and finally from the school to the cooking agency was carefully studied by the team. This was done by looking at the stock registers, record of daily use of rice and talking to the Headmaster and the cooking agency. In instances where a discrepancy was detected, the team also spoke to the dealer to understand the performance gaps.

**Cooking Cost**

It was seen that almost none of the cooking agencies maintain any records. The bills submitted to the MEO for reimbursements towards cooking costs and comparing it with the
number of children eating were examined. Further, the promptness of the payments to the cooks, how the cooks were allocating the cooking costs between different elements was examined.

**Infrastructure and Hygiene**

The VSATs observed the facilities available for the mid day meal. The availability of a kitchen shed, utensils for cooking and serving, drinking water facilities etc. were all recorded. Also, issues such as place for children to eat, personnel to serve the meal and maintenance of the place were also studied. The meal process was observed to see whether the entire process from cooking to eating was being carried out in a hygienic manner.

**Quality of the meal**

The teams (VSATs) paid special attention to the quality of the mid day meal. Investigations were made into whether children were being served a varied menu, whether the food served was nutritious enough to include adequate quantities of pulses, oils and vegetables. The issue of whether eggs and fruits were being given was also checked. The opinion of the children on the taste of the meal was also elicited.

**Survey of Children**

In each village a survey was also conducted with a sample of 30 children to verify the information in the attendance records and whether the children really ate the mid day meal. These children were also quizzed on the functioning of the mid day meal scheme.

**Village Social Audit Report**

After the above activities were conducted, the social audit team prepared a village social audit report and presented it in the Grama Sabha. The findings reported in the Grama Sabha pertained to all the aspects of the mid day meal scheme.

**Mandal meetings/public hearings**
At the end of the above social audit process in all the villages, a mandal level meeting was held in all the mandals. While in Adilabad and Kurnool these mandal meetings were held in the form of public hearings including participation from mandal officials. A review meeting with all the village social audit teams was held at the mandal level and findings discussed. In all the mandals a public hearing at the mandal level is being planned for after the second round of social audit is completed

**Impact**

The findings of the social audit were shared in a Grama Sabha and also at mandal level meetings involving all the stakeholders including Government representatives.

1. In many schools, as a result of the detailed monitoring of the attendance marking, the registers began to reflect reality.
2. In a large number of schools where the rice was stored in the agency or dealer’s house, rice is now stored in the school and each day the rice was allocated based on the actual attendance of children.
3. The quality of the meal is greatly improved in most of the schools. Eggs and vegetables were introduced.
4. Provision for drinking water was made in many schools where it was not available either by repairing existing tanks/taps or by providing large water containers to store water in the school.
5. Communities contributed for the plates of the children.
6. The Headmasters got more involved in monitoring the meal.
7. Overall, the community seemed more interested in the Mid Day Meal and this seemed to have an influence on the quality of the meal.
Main Recommendations of the study

1. The rice for the Mid Day Meal should be directly supplied to the school. The role of the dealer as a middle-man in this scheme must be removed. The Headmaster should be made responsible for the rice and maintaining the records related to this.

2. Cooking Agencies must be paid in time. A system must be put in place to ensure that they are paid in advance and the bills are settled later.

Findings

Many people in the community are coming forward to volunteer time and energy to be part of this process. It was also heartening to see that the Mid Day Meal Scheme is one of the few programmes of the Government which seems to be reaching even the remotest of villages.

Action Taken

1. Instructions have been issued to the District Educational Officers to conduct regular review meetings at the District level and mandal level and ensure that the scheme is implemented properly.

2. Adequate financial assistance has been given for the Deputy Educational Officer for hiring of vehicles for visiting the schools and reviewing the programme.

3. Efforts are being made to complete construction of kitchen sheds in all schools.

4. Amounts have been released @ Rs.5000/-per school for purchase of utensils and gas connection.

5. Adequate amounts towards stationary and miscellaneous items were released to districts to enable Mandal Educational Officers to execute the scheme properly.
6. The Head Masters are made responsible for keeping records of Rice allocated and daily distribution of Rice to the implementing Agency based on the attendance of the children.

7. Cooking cost has been increased from 2.50 to 3.50 paise per child per day, so as to give nutritious food to the children as per Government of India guidelines.

8. It has been planned to give two eggs per week or two Plantains, per child.

9. A cell has been created in the office of the Director of School Education with the Additional Director of School Education (MDM), Assistant Director (MDM) and supporting the staff for the implementing the scheme in an effective manner for constant review and monitoring at State level.

Some of the Evaluation studies conducted by different organizations with an estimated expenditure of Rs.25.00 lakhs under the Research and Evaluation Wing of Rajiv Vidya Mission (SSA), Hyderabad and the results are waiting

1) A study on the “Impact on the Nutritional Status & Cognitive abilities of the children at Primary and Upper Primary in rural and urban areas in Andhra Pradesh” has been entrusted to the Evaluation & Research Studies on Mid Day Meal Scheme to the Human Development Department of Acharya N.G. Ranga Agricultural University, Hyderabad.

2) A study on district wise “Impact of Mid Day Meal programme on children’s enrolment” in all the 23 Districts through the DIET Principals has entrusted to The Director, SCERT, Andhra Pradesh.

3) The following studies are entrusted namely “Impact evaluation of Mid Day Meal programme on Nutritional status and cognitive abilities of School children in Andhra Pradesh” and on “Tribal children’s Nutritional Meals” and “Training needs of officials,
SHG and Cook cum Helpers” through third party agency i.e. Department of Human Development & Family Studies, Acharya N.G. Ranga Agricultural University, Hyderabad, NIRD and NIN.

i. Installation of centralized kitchens on public private partnership mode & involvement of NGOs:

1. The Naandi Foundation, an NGO has taken up the programme in Hyderabad and Vishakhapatnam cities. It has established a huge central Kitchen at Hyderabad from which mid day meal is supplied to children in 891 schools in the twin cities of Hyderabad & Secunderabad. Similarly 35,734 children in 111 schools are covered by the centralized kitchen established in Vishakhapatnam city by the same NGO.

2. The Bhagavathula Charitable Trust, an NGO of proven track record is providing Mid Day Meal to 75,000 children in 70 schools in Vishakhapatnam District.

3. ISKCON is providing Midday Meal to 1,10,000 of children in Tirupati, Nellore, Kadapa and Rajahmundry Districts. The food is cooked in Centralized kitchen and transported to the schools.

4. The Akshaya Patra Foundation, Bangalore is providing mid day meal to 24,378 children in Medak and 5,543 children in Vishakhapatnam with a centralized kitchen.

5. One philanthropist by name Sri.Narayana Reddy is providing MDM to 3825 children in 27 schools with different recipes menu in Tadipatri Urban &Rural areas in Ananthapur district.

ii. Transfer of money to Implementing Agencies by the District Educational Officers with the Mandal Educational Officers.

The Implementing Agencies shall submit detailed vouchers to the MEO by the 5th of every succeeding month. The MEO shall consolidate the detailed vouchers of all the
Implementing Agencies in the Mandal and furnish a consolidated bill (Implementing Agency wise) to the DEO.

The DEO shall present the bill to the District Treasury Officer with the bank account numbers of Implementing Agencies. After passing the bill District Treasury Officer shall transfer the individual amounts to the bank account of the Implementing Agencies. The District Treasury will release funds to the Nodal at district head quarters who in turn will credit to the amount to the individual accounts held by the cooking agencies at Mandal level.

**Recent policy measures**

In 2007-08, Central Government approved the inclusion of Inflation Adjusted Index (Consumer Price Index) for calculation of central assistance towards cooking cost once in every two years, which will be applicable from 2008-09 for primary and upper primary stages (Economic Survey, 2007-08). An allocation of Rs. 8000 crore for the MDMS has been done during the Interim Budget 2009-10.

**Conclusion**

Provision of dry rations and biscuits, which were part of the NPNSPE before the Supreme Court order on cooked meals has shown that children often did not consume these. Although MDMS has ensured enrolment but it had little impact on attendance and retention levels [Baru et al (2008)]. Records at the Department of Public Instruction show that school attendance has improved since the introduction of the MDMS by 2-10 per cent across Karnataka (Ravi, 2006). Since the Supreme Court says that the onus to monitor the implementation of the scheme essentially lies with the Central government, as it is the Central government that is providing assistance, it is important that leakages from the MDMS should be stopped at all cost.
The quality of cooked food served needs to be enhanced. More allocation of funds for MDMS would be able to attract students in the Sarva Shiksha Abhiyan (SSA) and increase retention in schools (Zaidi, 2005). Free mid-day meals for school students were first introduced in a Japanese private school in the late 1800s, in Brazil in the year 1938 and in the United States in the year 1946 (Parikh and Yasmeen, 2004). Seeing the experiences of countries like Brazil, the United States and Japan, the MDMS should not be discarded by the government.

iii. System for Cooking, Serving and Supervising Mid Day Meal in the Schools

In rural areas DWCRA/Self Help Groups/SEC/Other agencies like Temples, NGOs of proven track record, charitable Trusts/Group of Parents (in this order of preference) are identified by the Mandal Revenue Officers as the implementing agencies. They are not paid any salary/remuneration for this purpose.

In Urban areas community development societies like (CDS)/NGOs/Urban SHGs/DWCUA/School Education Committees and other Agencies like Temples/NGOs of proven track record/charitable trusts/Group of Parents (in this order of preference) are identified as implementing agencies by a committee headed by the MRO.

The implementing agencies are responsible for lifting rice from the Fair price shops as per allotment made by the Mandal Revenue Officer.

Implementing Agencies maintain registers like, stock register, issue register, etc. They also furnish monthly reports on implementation of Midday Meal in the schools to Mandal Educational Officers for onward transmission to the Mandal Committees.
The Implementing Agency procure cooking vessels from out of their own sources or by taking bank loan and make repayment from out of the funds released to them. Generally one implementing agency cooks and provides MDM to one school. However some NGOs provide Mid day Meal to a number of Schools for example:

1. Bhagvathula Charitable Trust based in Yelamanchili of Visakhapatnam district is providing Midday Meal to 7500 children studying in Innovative and Experimental Schools, which are aided by the Government of India, in addition to the children studying in the regular schools Government of Andhra Pradesh in partnership with NAANDI Foundation runs the largest centralized Midday Meal Kitchen and is feeding about 1,94,390 children every day in Hyderabad District and 35734 children in Vishakhapatnam city.

2. The Akshaya Patra foundation Bangalore is providing mid day meal in Medak 24378 children and, in Vishakhapatnam 5543 children with a centralized kitchen.

3. Food Relief Foundation ISKCON is providing Midday Meal to 1,10,000 of children in Tirupati, Nellore, Kadapa and Rajahmundry Districts. The food is cooked in Centralized kitchen and transported to the schools. The mother’s committees and Gram Panchayats supervise the Programme at the school level. The Teachers are not involved directly in the implementation of the Programme. However, the Headmaster of the concerned School maintains a close liaison with the Implementing Agencies and Mothers Committees. They are responsible for certifying the number of students who availed themselves of the Mid Day Meals and supervision of quality of food supplied to children. They also make nutrition, hygiene and cleanliness a part of teaching learning process and encourage the students to inculcate sound health habits.

iv. Status of Construction of Kitchen Sheds
Initially it was planned to construct 48,531 Kitchen sheds. In most of the places contractors are not came forward to take up a job as they felt it unviable. However after a lot of pursuasion and slight modification in the plinth area contractors have now taken up the job with the result 11660 kitchen sheds have been constructed / nearing completion. Balance of 36871 Kitchen sheds construction will be taken up during 2009 – 2010.

v. Other facilities

To improve the general ambience in the schools the following items of works are being taken up under various schemes:

1. Construction of 1,14,871 toilet units in schools with an estimated cost of Rs.229.74 crores has been taken up by Panchayat Raj Department against which the construction of 84,623Toilet units are completed.

2. Providing Drinking Water facilities in 70,505 schools have been taken up with an estimate cost of 210.62 crores under RWS Scheme by the Panchayat Raj Department against which the work has been completed in 71424 schools.

vi. Status of procurement of kitchen devices from : (i) Funds released under the Midday Meal Programme and (ii) Other sources

An amount of Rs.14.41 crores was allocated by Government of India for procurement of kitchen equipment/devices to 28,837 schools @ 5000/-per primary and upper primary schools. These will also be provided to the needy schools on priority basis. NGOs like NAANDI, ISKCON and Akshaya Patra foundation have setupcentralized kitchens with necessary infrastructural facilities and kitchen devices.

vii. Overall assessment and an Analysis of Strength and Weaknesses of the programme implementation
The SPIU Education through M.V. Foundation and other three external agencies has taken up Social Audit of Mid Day Meal Scheme in five districts of A.P. covering two mandals in each district and 25 schools in each Mandal and thereby covering 261 schools comprising Primary, Upper Primary and High Schools. These schools have been surveyed by the Social Audit Teams (SATs) constituted in the respective villages (2008).

The following are some of the suggestions made in the study:

1. The rice for the Mid Day Meal should be directly supplied to the School. The Head master should be made responsible for the rice and maintaining the records.

2. Cooking agencies must be paid in time.

3. Norms must be made available to public how the conversion cost is calculated and paid.

4. Proper guidelines with regard to a weekly menu, cost norms etc. must be made available to all the schools.

5. The Head masters and the Cooking Agencies must be given training.

6. Teachers must supervise the conduct of the Mid Day Meal. In all the schools where the Head master/Teachers were involved in the monitoring of the meal, the quality of the meal was better.

7. A proper supportive supervision system at the Mandal level should be established. Currently, there is no monitoring of the Mid Day Meal scheme by the Mandal Educational Officers (MEOs). They are only involved in the paper work and payment of bills but not in ensuring the quality of the food.

8. A proper study should be conducted in order to know and refresh the roles, responsibilities of the personnel involved in the implementation of Mid Day Meal scheme at State, District, Mandal and School level for taking appropriate measures for better running of the scheme.
9. The Mid Day Meal should also be used as an opportunity to spread nutrition and health education among children.

2.4 APPRAISAL

It may be seen from the brief review of literature presented in the foregoing pages that a few studies have been carried out in the problem area. But by and large except on a few variable, the results obtained are not coinciding and hence arranging further investigation. Selection of certain important demographic and sociological variables are supported by any other studies, even though, they are not exhausting for obvious reasons. So the present proble is selected from investigation as attempt to find the relation/afftect of some selected variables on the dependent variable.